

~ This piece first appeared published in *The State*, Volume 2: Speculative Geographies – a luxuriously presented, fabric-lined artifact with custom pockets for each contribution, and each of which folded out like a map. It was kindly shepherded by Rahel Aima and Ahmad Makia. ~

THEY CAME TO THE DESERT AND WERE CONSUMED BY A FLICKERING FORTRESS

AUTHOR: DEMILIT

Interested firms are asked to design a synovial infrastructure to modulate a capsular index of real and artificial habitats in order to both showcase and further evolve a new breed of biomimetic lifeforms across an exotic and hyper-experiential terrain. Submissions will be judged for their success at delivering an architecture of spectral transparency; a means to integrate multiple landscapes with a modular complex of open-research spaces that peer into the vanguard of artificial intelligence design, applied biomimicry, advanced robotic ecologies, and that could be expanded infinitely into a globally—and even interplanetary—inclusive public laboratory.

– From a page at the Federal Business Opportunities clearinghouse website

Thousands of electronic nostrils huff air cauterised by the searing heat. Outdoor AC ventilators push invisible clouds of particulate matter into a leviathan feedback loop, and millions of measurements are digitally fossilised through an array of hidden chemical sensors and pattern recognition logistics. The olfactory footprint of an entire theme park fills a database suspended inside a bunker hundreds of yards below. The nasal system reports in speech synthesis about a siphon stenosis in the cryptogardens of Eden:

... Harmless choke of sun-baked chlorine pools evaporating with high counts of fragrant skin lotion. Cultivated plots of hydrophilic auto-guidewire catalogue new seepages and erosion beneath meta-gardens. Gurgling motors release acceptable quantities of noxious steam over aquatic park ...

Somewhere over a clearing, inside a blimp-like pod, the Director pours a glass of single malt for the Architect. Below them, hundreds of teams—each with millions of bio-incandescent, roboticised hemiptera—practice elaborate swarm patterns. In the air, they volley about what look like thousands of fluorescent spheres in a competitive, synchronised routine.

Looking down at the ballet of orbs, a wry crease elongates from the Architect's mouth as he touches a pad concealed in the window frame, activating the geopositioned control. He hadn't shared this one indulgence with the Director. His graduate students in the nanomaterials group had passed it along to a subcontractor just days earlier. The glazing around them ripples in response to the touch command. Perceptible only because the pair are standing immediately in front of the glass, micropores speckle throughout the heavy laminated glazing. Before their eyes, the wall transforms into a translucent epidermis. Through it now wafts the ambiance of the manufactured forests; full choruses of birds and insects and the calls of strange monkeys; the distant laughter of children; the smells of blossoms.

... Radicular florets with shooting colors nearing optimal aromaticisation. Nicotine mapping indicates unremarkable distribution of micro-regional pollution. Active Scan still in progress

...

A strange light falls upon the first jitney that comes into view. It leads a snake of intrepid vehicles deep into a national test site on desert plains where the Pentagon—and only the Pentagon—presides for miles and miles in every direction. Not that you would know this; such a harsh landscape presumably defies any utility. Neither is there evidence to suggest human activity could or should take place out here, even if humanity’s survival depended on it. Perhaps one day it will.

Peeking from behind the blotter of a post-dawn mirage, another reflective centipede slides forward along a stretch of sticky freeway—this time from the opposite direction. Then, a fatter assembly of blinding white shuttles suddenly slips into the thick bright light from the northern valley where a small glut of cheap hotels has recently been slapped together just for this occasion. For this exceptional day, in fact: the inaugural grand opening of what one journalist already deemed "the most futuristic zoo mankind will ever see."

Conditions are so diabolically inhospitable that the very idea of a facility for living things, here on the earth’s own alien fringes, seems a gruesome experiment in the impossibility of reason. But as you well know, that never stopped GARPA—the Green Advanced Research Projects Agency—the Pentagon’s magical hair-brained think tank. If anything, *gruesome experiments and the impossibility of reason* have only invited it. And what if ‘living’ in this case didn’t necessarily mean ‘alive’?

"A new class of talent," the Director had said, "in biomimicry. We are solving the ultimate challenge—of death itself. The GARPA Grand Challenge for the ages. No longer foreign to us, this quest conforms to our existence. We know it's true. And the advent of the Internet created unique opportunities for human-animal connectivity."

At the ribbon-cutting ceremony, amid the hushed bewilderment of hands holding phones in the air, videoing and tweeting all the while, another journalist later quotes the Director’s exegesis: "The engineered beasts on the ground and those that occupy our oceans and skies are now twelve percent of the total wildlife population. A new spirit world, in our midst of beached dolphins and whales. And it should come as no surprise that the animal kingdom is occupied by some of the best—and the worst. Sometimes these animals are aggressive; sometimes camouflaged, and sometimes they embody...*tenderness*."



On a swath of grounds scraped clean of scar tissue, a dozen biodomes bloated with epidermal textures spread out like the foam of botched surgical glue. The domes, made of magnification plexiglass, enlarge the artificial skins of future animal bots being produced inside—for all to see from the outside; from every angle, like a set of fisheyed movie screens. The architects tout it as *evolutionary spectacle design*:

"Visitors can now watch the contents of the building unfold from any perimeter without having to go inside or disturb the process. We call it *transverse bubble vision*, or TBV, and it’s even better at night! It’s cooler than any drive-in you’ve been to, I promise you that. The process of making artificial skin is something you want to see in your lifetime, and we have created the best venue for showing it. I won’t give away all the secrets, but will just say, well ... you’ll all just have to come back to see for yourselves. Trust me."

No one had ever seen such a synthetic skin factory before, but someone overhears that such

sunned biodomes are ideal for stretching a cyborgian canvas to its precise tautness, for engineering variants of pigment control, and for weather testing. “Hollywood’s got nothing on these hides. These are the *real* expository fascial filmographies of the future. In fact, we all may one day be treating our own skins to similar processes for longevity. Mark my words, a brand new generation of human flesh begins right there, people.”

... Artificial fur polyesters and lithium grease—their pungency elevated by an island effect—match more closely the stink of sea mammal pelts fused with silicon. Dog kennel scat at relative limits. More floral perfumes requested in Quadrants 5e and 6b. Fertiliser dilution discharge in balance with ground to air quality control ...

A squeamish girl with ponytails and a protruding forehead cuddles a 185-pound assembly of battle-tested computers, electronics, onboard sensors, fuel tanks, mufflers, and mounting racks, all ingeniously packed onto a set of four independently thinking mechanical legs. It has a cage in front, roughly the shape of a hyena’s head, and a cute tail that wags and swats desert bugs off its back. She wants to take the obedient quadruped home, so “Jack can have a friend to play with in the backyard.” One of the teenage photographers interning at the zoo quickly snaps a shot of them, prints it right there, then hands it to the girl’s father who is completely mesmerised by the tamed beast. It moves only when people are not too near it. Reluctantly, he takes his hand off of its faux fur neck to grab the picture, and his face crimps with a delayed half-smile. Below his beloved’s image with the beast, he reads, “Your Life Knows GARPA.”

A nearby fountain showers the scene with pink noise, masking the visitors’ sounds from the sensitive habitat of pygmy Chisel-Tooth Kangaroo Rats. Wind sprays the crowd, a brief respite from the sun that broils the moistened earth and lifts dusky vapors of an altogether unsavory soil.

A bushy-haired little boy giggles at the sight of a bizarre creature with eight short limbs and a parabolic ear, basking in the fountain. A mom smacks gum between chapping lips, dad mumbles something, and somewhere close by, a balloon pops. The parents huddle around their iPad to watch earlier coverage of the inauguration on *ABC World News*. A telegenic host’s all too whiny voice streams from their laps:

“When GARPA first issued a call and invited the general public to submit designs for a ‘revolutionary zoological terrain,’ the blogs and social media sphere went crazy. Seductive was the prospect of establishing a more scrutinising relationship between the highly privatised sector of defence systems design, and the public, whose opinion of government has grown wearily unfavorable for years. Ever since the phenomenon of anonymous underground hacker networks and whistleblowers cemented themselves as a chronic digital thorn in the sides of corrupt democracies worldwide, there’s been a renewed effort on the part of these institutions to “green politics” again—by weeding out entrenchments of government secrecy. As you might imagine, “transparency” became the measure; it became the new green.”

Here was an opportunity to synthesise a perfect nexus of participatory defense space, while in the process rehumanising the very soul of American politics. Not only would this daring new facility lift the lid on one of the government’s most secretive design agencies, it would turn some of its most sophisticated labs inside-out and invite a permanent contribution from high school students to preeminent engineers across the globe, and everyone in between. As a “progressive crowd-sourcing hub” run completely on renewable energies—even harvesting spilled radiation from past weapons tests—this net zero zoo promised to be one of the most unique public spaces that the Pentagon had ever introduced, and guaranteed to set the bar on transparency.

... Food court sensors stuck on irreconcilable objects: possible salty snail bellies and discarded fried finger foods sending combined signals of rotten flesh from overstuffed garbage bins...Verification Required ...

“They have called this the dreams of children playing god. But the terms are wrong! Clearly this is a reality made by gods dreaming as children. All great works have this quality of innocence, of the spirit found at the beginning of all time.” The inauguration crowd murmurs for a moment and falls silent. The Architect holds the crowd at his will beneath a stern gaze, breaking into a wrinkly grin on his smooth shaven face. “And time begins anew when you will shortly pass through those gates.”



Like mechanised serpents prowling for sci-fi adventures of the unknown, long bands of every vehicle imaginable—from old clunkers and rental sedans to escorted limousines and flatbeds with mysteriously tarped objects onboard—steadily slink towards the first glimpse of a massive concrete island the size of a vacant suburb. At first glance, through the murky prism of a mirage, this unapologetic grey mass could easily be mistaken for an exurban tumor of some sort, or a cosmic cow chip lobbed from deep space. It is completely devoid of anything. Not even a road sign in sight.

The closer the cavalcades get, the more the mirage’s ripples—percolating over their visual field—dissolve the savage plank into a definitive, disparaging flatness. And the more the perspiring hopes and dreams of thousands melt into fears that they’ve taken one very wrong turn, or instead have been collectively misled onto a collision course with the remote trappings of a cruel joke. At this moment, they are an exodus of scorched bottom feeders coming face-to-face with the colossal flooring of a utopian abyss; termites approaching the paramount waste of human effort and failed ingenuity.

While fussy children and families gaze in horror behind their warped sun visors, scores of thrill seekers, young scientists and other more inconspicuous professionals hang their heads. Smeared windows and cracked windshields frame their utter disappointment. They begin to think that all their hard earned vacation dime, precious grants and fellowships, and patriotic enthusiasm have been spent chasing after the elaborate billboards of a sadistic government prank. A fraternal hazing of the highest institutional order, as if they’ve been sent down an irreversible detour into the fissures of their country’s most bankrupt promise. And for no other purpose than to lead a public from all over the world down, down, down into the depths of this dried-up well where the bombastic hype of ‘shock n awe’ culture is reduced to an enormous chunk of concrete banality plopped in the middle of nowhere.

But let’s not forget who we’re dealing with. If ‘shock n awe’ is what the public has come to expect, then ‘shock n awe’ is what GARPA’s gonna bring ‘em.

... Hydraulic lubricants and soldering refuse appropriately contained in their spheres of origin. Thermal ranges of sulphur dioxide and ACU coolants in active data centres operating in normal ranges. Industrial rubber exfoliations at Bot Safari reaching peak concentrations. Emergency battery toxicity emissions at non-critical ...

Once the miles of motley auto-snakes crawl into a more perceptive range of this great naked slab, subtle glints of light begin to flicker—for a moment in midair just behind it, before quickly

disappearing. The closer each vehicle gets, the more they see mercurial light globules crystallising like magic dust. They begin to outline, only for an instant, the implications of an enormous shape. Fathers doubt their sons' reports of this, while grandmothers fear an onset of heat stroke. Sunglasses are quickly wiped clean so more and more eyes can take aim at this mercurial yonder.

Reaching just the right distance—a few hundred yards from the slab's conspiratorial edge—the road suddenly takes on an unexpectedly angular set of twists and turns. The cars are forced to move at a much slower and more deliberate pace, as if to circle a monumental shrine that was never built. But with each crank of the steering wheel, more and more effervescent glares pop in and out of view; following these obtuse, protracted shifts in steering, the roadway merges into a labyrinth; the passenger's gazes are directed at the glaring seams between the visible and invisible essences of this mysterious megalith; each new turn visages a mapping of sun streaks that finally give away this—this...*thing*, magically squatting in the desert.

Ephemeral striations of desaturated light stretch into view long enough to convince them that something is real, only incapable of being seen in its entirety at once. Just as one facet is lost at the end of a road strip, another turn forces a new gander of the floating fortress, so that an incalculable number of reflective contours are revealed and abandoned along this slow promenade around a hyper-scaled Renaissance garden.

...Waterproof power cables blistering on their storage wheels register minimal odorosity...Grade 1 incense levels detected from burning hoses and rusty nozzles—priority...Request Manual Monitor of fiber optic network alarms...

At first, no one is quite sure what they are actually witnessing. Is it a collective hallucination, or a titanic hologram of a gemstoned building? A highly complex set of lenticular façades that are meant to harness the sunlight? A series of sky projections, or an innovative sculpture reflecting and reshaping the desert's mirages? As vehicles move, tires rub against the pavement and release squat whistles. Zig-zagging back and forth, the zoo visitors finally realize that the road's design is a brilliant set of viewing instructions. The scenic geometry of viewing lanes unveils the fortress' secret disappearing act by way of its most flattering myriad angles. The cloaked fortress is an architecture literally in hiding, performing the act of its undressing—a seduction by way of its own visual deception. The road is the only interface for peeking behind its great mercurial curtain. What began as an aimless drive to a useless concrete slab has become a cartographic manual to witnessing a massive object's secret ability to bend light around itself and make it unfathomable to the naked eye.



Off to the side of a conference room, an eager livestreamer broadcasts an interview with GARPA's head cryptography expert, a turncoat from the black hat world:

“We contracted some of my old hacker buddies to produce a dynamic, intelligent map for the public that would visit the facility. It had to do two things: modulate trust, and reflect all morphings in the loft, so to speak; that was the challenge. GARPA wanted to make sure that the analytic—and the community-sourced trust within—was perfectly synced up with structural motion and territorial envelope changes. For example, this sector has been secured and uncharted due to my presence inside. Your ability to traverse space—or not—can improve as a result of two variables: your personal associations, and your service to the loft. A violation would result in imposing a doubly-redundant security layer of limited geospatial information outflow, and— Wait...uhhhh...innnterr-esss-ting... Ahem. Why is there another account inside our

sector?”



After passing the point of no return, visitors stack up to enter a sunken parking vortex. Ramping slowly downward, vehicles are restricted to no more than five miles per hour through a long cylindrical shaft that digests them like the oesophagus of some mythological earthworm. This subterranean descent is, however, barely noticeable. Darkness is averted by a nascent funnel of sun reflectors and artificial lights that constantly combine to calibrate and emit a perfect intensity of enriched sunlight. The feeling of having gone underground is magically diminished. But once inside the shaft, something appears to shift—a skin slightly altering its complexion in the furthest corner of the driver’s eye no matter which way he or she looks.

“Are the walls moving, Daddy?” The truth is, he doesn’t know. He just keeps driving, while subtle stroboscopic perturbations in their pattern lend a moiré effect; the secret of the wall’s surface masterfully evades eye scans. “This is hella trippy dude!” Totally. The tunnel continues to gorge itself, like the gargantuan trunk of a fiending security elephant; invisible cilia snorting for traces of banned chemicals, or runaway nano clouds from a virus circus.

... Recreational Areas miasma chart suggests human scent readings are slightly out of phase with predicted demography...Bomb-sniffer sentries reporting sublevel detections of abnormal biological contaminants ...

The gates noiselessly pummel their senses, before shutting and disappearing behind creeping coils of hybrid foliage as soon as they pass through them. Coloured bands of light—embedded in the steel flooring and jutting in multiple directions under their feet—splice the mobs into different directions. Strafing through shaved light and allergic dust, weightless and granular as a dissolvable dream that clings to life, people of all ages and origins rush through a stupendous sieve to be the first to get in.

Here, fans of the apocalypse go on to storm the battered play cities of tomorrow, commissioned inside an outdoor room the size of an ancient disappeared lake. They’re all too happy to trade the price of admission for dangerous escalator rides and sky trolleys through futuristic warzones yet to come. From zip lines to balcony units on wheeled scaffolding, they force-feed their eyes into mounted field cameras and viewscopes to fix themselves with technothriller highs. Other eager souls find the privilege of getting lost inside big box greenhouses stuffed with counterfeit jungles, ghost army soundtracks, heat rays, and weaponized laser beams dissecting the vast dimness, wearing tangled infrared sensor targets on their chests. Setting off tripwires, they will be stalked by something—but what, exactly, they have no idea. The hidden sounds of roving machines, more likely.

And only some of these lucky masses submerge in the fluid library of subaquatic drones, and swim, firsthand, with naval brigades of misshapen landfish and grounded bird wrasses soon to make their way off the shelf. Others board a hundred miles of drooping catwalks straddling the tops of mock riot scenes, where monotone police bots—on all-terrain treads—route and tase dummy criminal evaders. Some ride moving walkways through recreated Fukushima meltdowns while Packbots and Moni-Robos drill cores, rehearse removing hazardous sludge, and haul faceless bodies from debris. More mobs fill entire behemoth gymnasiums converted into large-scale architectural acrobatic zones, so that parkour experts can compete with animatronic chimpanzees for top urban maneuver honors. Others flock to a pair of giant concrete embankments that resemble sleeping ogres, and watch solar-powered iCrabs disarm IEDs inside empty tide pools.

Buffered by sprawling artificial turf and scattered lawn chairs, stacks of shipping containers—used for urban warfare training modules—rearrange themselves into thirty different possible configurations at the push of a button. Nearby, tons of remade sand dunes spill out of huge galvanised shelves next to racks of high-powered fans ready to simulate biblical sand storms. Attached to the same generators that power them are hundreds of mechanical snakes wound in knotted piles of recharge cables.

There are entire ghost towns coated in bulletproof rubber. Caged tubing protects foot traffic, spanning free range habitat borders so that certain predator bots may run wild and test their algorithmic behaviors without the liability of injuring anyone. White-noise filled garages and workshops expose the bowels of fallen, godzillean Big Dogs. Sprinkler systems that convert air into water mysteriously go off for no reason in a section by the public restrooms—a crowd mistakes them for cooling misters. There's the Great Climbing Wall that features a number of different bio-inspired skins, so that animated creatures can stick and climb seamlessly with the single effort of a big toe.

Storage bunkers-turned-galleries are filled with prototypical exoskeletons and endoskeletons hung from chains, their silicone bones creaking and scraping against the concrete walls. There are listening rooms built on flexible gears and hinges, with tubes for prosthetic hearing of the animals roaming the grounds. At the end of an industrial grotto, past warehouses and hangars, and quonset huts for robo-handler living quarters that allude to a kind of open-air Manhattan project, visitors end up at the claustrophobic Museum of Applied Metamaterials. The outer edges of the park unfold into swaths of mindful gardens, droning with the synchronous beating of millions of tsetse fly wings.

Still so much unheard, unsmelt, like the acrid acid pools and bubbling algae ponds used for robotic repair and refueling. And an alleged network of cloaked sky trams, heard but not seen, screech like bolts of electricity arching over sky. Biometric dust storms are triggered when necessary to drown out all light and sound. The only silence to be found is in a private graveyard of outdated war bots, housing the infamous mechanical elephant from the Vietnam War.

In the muted fervor of this colossal image, trapped in the compound oculars of a roving blimp, thousands of unwitting volunteers scatter the maze. Instantly forgetful of how they got in, and even still more mindless of how they might get out, these hordes wander towards a nebulous centre that they cannot orient, but are unknowingly drawn to. Their lust to play in warfare's great sandbox slowly replaces any sense of direction with an unrepentant need to celebrate the recreational destruction. Watched, scanned, and recorded for every move along the way, the zoo spares no attempt to accommodate their chaotic enthusiasm so that, perhaps, right beside them new things may come to life.

The End



N.B. This piece is part of a larger Demilit research project.

Bio:

Demilit is a collective founded in 2010 by Bryan Finoki, Nick Sowers, and Javier Arbona. The trio also works with various collaborators on specific projects, performances, and playful improvisations. Demilit draws from architecture, sound art, creative writing, geography and other fields to produce work that encompasses events, texts, web memes, and more. Their sound piece "SF Gravelator 91L" was commissioned for Deutschlandradio Kultur 's Newcomer Werkstatt program. They have also created multi-disciplinary events for venues like the Headlands Center for the Arts, the San José Biennial, and OtherCinema.